

**COAL
STANDARD OPERATION PROCEDURE NO. 5.4**

Land Quality Division

SUBJECT: Contemporaneous Reclamation

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Foreword

The attached Standard Operating Procedure is the internal policy of the Land Quality Division of the Wyoming Department of Environmental Quality covering the topic of Contemporaneous Reclamation. Staff shall make no significant deviations from this policy without the prior approval of the District Supervisor and the Administrator.

Signed this _____ day of _____, 1998.

Richard A. Chancellor
Administrator, Land Quality Division

I. Introduction

Contemporaneous reclamation has long been a topic of concern. Twice in recent years it has been a subject of oversight by OSM. This has been in response to citizen concerns that mines, particularly in the Powder River Basin, are not being reclaimed contemporaneously. The result of the latest oversight indicated that while the mines were found to be in compliance with their permits, the permits were deficient. The permits were confusing and terminology and maps in the different permits were inconsistent. This makes it extremely difficult for the general public to understand the permit requirements.

Because of the findings by OSM in the 1997 Evaluation Year oversight report, LQD agreed to develop standardized permit review criteria to ensure that the regulations concerning contemporaneous reclamation are consistently addressed in each permit. LQD staff will review every coal permit to determine if a permit defect exists. If one exists, the permittee will be required to submit a revision. The purpose of this SOP is to provide guidance to the staff with regards to ensuring compliance with contemporaneous reclamation requirements.

II. Statutes and Regulations Pertinent to Contemporaneous Reclamation

- A. **W.S. 35-11-402(a)(iii)** requires the Department to establish standards that require "A time schedule encouraging the earliest possible reclamation of the land to a use at least equal to its highest previous use;"
- B. **Chapter 4, Section 2(b)(i) of the Coal Rules** states that "Rough backfilling and grading shall follow coal removal as contemporaneously as possible based on the mining conditions. The operator shall include within the application for a permit to mine a proposed schedule for backfilling and grading with supporting analysis."

- C. **Chapter 1, Section 2(ca) of the Coal Rules** states that "Rough backfilling means replacement of sufficient material in the pit or pits including special disposal practices for toxic and acid-forming materials, special handling and placement of materials for stream reconstruction or alluvial valley floors, and compaction as required so as to render the affected area in a condition whereby the reclaimed land surface generally resembles the approved post mining contours."
- D. **Chapter 2, Section 2(b)(i)(B) of the Coal Rules** requires operators to submit "A map showing the estimated orderly progression of mining and reclamation on all proposed affected lands."
- E. **Chapter 2, Section 2(b)(ii) of the Coal Rules** requires operators to submit "A time schedule for each major step in the reclamation which coordinates the operator's reclamation plan with the mining plan in such a manner so as to facilitate reclamation at the earliest possible time consistent with Chapter 4, Section 2(k) and the orderly development of the mining property."
- F. **Chapter 4, Section 2(d)(v) of the Coal Rules** states that "...Seeding of affected land shall be conducted during the first normal period for favorable planting conditions after final preparation unless an alternative plan is approved...."
- G. **Chapter 4, Section 2, (k)(i) of the Coal Rules** states that:
- "Reclamation must begin as soon as possible after mining commences and must continue concurrently until such time that the mining operation is terminated and all of the affected land is reclaimed. If conditions are such that final reclamation procedures cannot begin until the mining operation is completed, this must be explained in the reclamation plan. A detailed time schedule for the mining and reclamation progression must be included in the reclamation plan. This time schedule shall: ".....
- (B) Designate times for backfilling, grading, contouring and reseeding;
- (C) Be coordinated with a map indicating the areas of progressive mining and reclamation;
- (D) Establish reclamation concurrently with mining operations whenever possible. If not possible, the schedule shall provide for the earliest possible reclamation consistent with the orderly and economic development of the property....."

- H. Chapter 4, Section 2(u) of the Coal rules** reads "Cessation of operations. When it is known that a temporary cessation of operations will extend beyond 30 days, the operator shall submit to the Administrator that information required in an annual report."
- I. Pending Rule.** There is also a pending rule that requires roads to have a separate reclamation schedule. This rule should be promulgated sometime in 1999.
- J. Rule Requirements.** The Coal Rules cited above can be condensed into the following fundamental concepts and requirements:
1. Reclamation progression is tied to mining progression and is to be conducted concurrently;
 2. The permits must contain a time schedule for rough backfilling, grading, contouring, topsoil replacement and seeding (and soon road reclamation); and
 3. The permits must contain a map showing the progression of mining and reclamation.
- K. Reduction of Sequence Maps.** Years ago, the LQD required a map showing each step in the mining and reclamation progression. We discovered that these sequence maps were identical except each line indicating the progression was offset by a certain amount from the others. To reduce the number of maps that had to be submitted and reviewed, we drastically reduced the number of sequence maps required. This oversight review indicates we may have gone too far.

III. Required Information

The following information will be required to meet the intent of the regulations. Site specific conditions may require alterations to the following information. However, the district must ensure the information submitted meets the intent of the regulations, is easily understood, and provides clear dates, time frames, and schedules to achieve reclamation.

- A. Topsoil Removal Map.** This is also called a disturbance map. Although topsoil removal is generally tied to the mining progression, additional areas are disturbed in support of the operation.
- B. Coal Removal Map.** The regulations require a mining progression map. Mining progression could be satisfied by either overburden removal or coal removal. Generally there is no need for both. Since reclamation can not begin until the coal is removed, a coal removal map serves as a better bench mark in determining contemporaneous reclamation;

- C. **Rough Backfilling Map.** Rough backfilling is defined in the regulations while other terms such as rough grading are not. The regulatory definition implies the area is backfilled and graded to resemble the approved post mining contours including the placement of special materials for areas such as alluvial valley floors. Permits currently have "backfill" maps that range from the initiation of backfilling, the midslope of the backfill, to the completion of backfilling but not yet graded. To be consistent, the regulatory definition of rough backfilling will be used;
- D. **Topsoil Replacement Map.** There is a regulatory requirement to reseed areas during the next planting season, but no such clear statement to topsoil an area as soon as grading is completed. Therefore, to show completion of reclamation, a topsoil replacement map will be used;
- E. **Schedules**
1. The regulations require the schedule in the permit to address the following areas: mining progression (topsoil removal, overburden removal, and coal removal), backfilling, grading, contouring and seeding. The schedules should be tied to one or more of the required sequence maps.
 2. In the past operators were concerned with being rigorously held to the schedules and sequence maps. The current permits contain language to show that the sequence and schedules are estimates and the actual mining and reclamation may deviate from what is noted in the permit. Some of these qualifiers have expanded to the degree to render the maps and schedules almost meaningless and make it difficult to evaluate compliance.
 3. The only valid reason why the sequences and schedules in the permit may not be on target is a change in production. The regulations clearly tie reclamation to the mining progression. The schedules in the permit are based on production estimates by the operator. There is no compliance concern if actual production is different than projections. We recognize that if production is less than projected, then reclamation will be less (slower) than projected. The converse is true if production is more than projected. What is not acceptable is for production to increase without a similar increase in reclamation.
 4. The operators may include language to explain that the sequence maps and schedules are only an estimate based on current predictions of production. If actual production differs from predictions, **both** mining and reclamation schedules

will be affected to the same degree. Any further "qualifiers" only confuse the issue and should not be allowed.

5. It should be noted that reclamation will not always advance at the same rate as mining. The progression of mining through ridges and valleys along with the construction of ridges and valleys in the backfill impact the amount of overburden available and required for reclamation. A well engineered reclamation plan will have taken these factors into consideration and will be reflected in the sequence maps and schedules. A simple explanation of these factors in the permit is all that is required. There should be no "surges" or lagging in actual reclamation other than what is shown and discussed in the permit.

F. Contemporaneous Reclamation Section

Each permit is required to have a separate section that summarizes how the mine is achieving CR. As an example, this section may be used to explain why reclamation appears to lag in certain years but catch up in later years. The various maps and schedules may be referenced and do not have to be duplicated in this section.

IV. Temporary Cessation of Operations (TCO)

- A. TCO Application.** TCO apply when an entire mine or an area of the mine temporarily shuts down. We have used the provision to designate areas within an active mine as being disturbed but no longer active and not in reclamation. We have done this to make sure everyone, including the public, is aware that some areas will be in an unreclaimed condition for an extended period of time. In order to highlight areas where reclamation will not occur until long after an area is disturbed, operators, perhaps with our encouragement, have inappropriately designated some active areas such as haul roads as being in TCO.
- B. Categories of TCO.** There are generally three categories of TCO: (1) the entire mine site, (2) a particular pit in a multi-pit operation, and (3) trenches. Examples of the first category include the Clovis Point Mine where there is no activity within the permit area except monitoring and maintenance. An example of the second is the Black Butte Mine where there is no mining or reclamation occurring in several pits. An example of the last category is the Belle Ayr Mine where a trench is left unreclaimed in a common mining area with a neighboring mine. Another example is the Jacobs Ranch Mine where a trench is left along one side of the pit progression to facilitate mining when the pit turns and mining begins adjacent to the trench area.

- C. **Haul Roads.** Haul roads and conveyor corridors are not placed in TCO as long as they are being used. They are considered part of the facilities area and are not required to be reclaimed until they are no longer being used. Such support areas do not require a special designation such as TCO as long as they are being used. They potentially could be placed in TCO if they lead to a pit that is in TCO and there is no other use of the road to support mining elsewhere. Usually, the mine will use the road for monitoring if for nothing else. It is not the intent of the division to interpret this provision to include every square foot of ground or an area of a pit that may be idle as part of a dragline sequence. An example is when a the dragline is operating in a figure eight pattern and one end of the pit may not have active mining or reclamation occurring for more than 30 days.
- D. **TCO Reclamation.** It is important when considering an area for TCO that all areas available for reclamation be completed or that reclamation be completed to the maximum extent possible. Just because mining stops does not mean that reclamation stops. Backfill that is completed should be graded and topsoil should be applied. Although not always, this may include taking topsoil from stockpiles rather than waiting for future stripping for a direct haul. Consideration should also be given to the use of stockpiled overburden if it is a reasonable distance from the pit and does not impede the future mining of the pit.